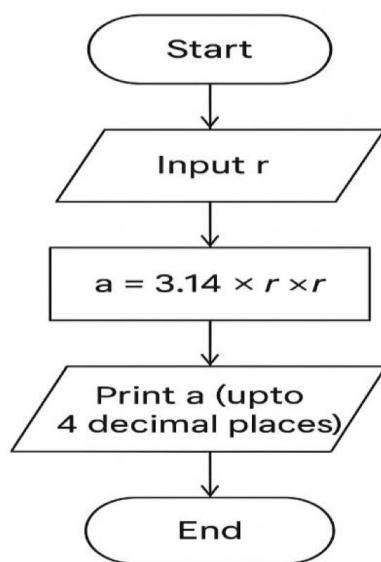


PROBLEM 1.1.1

Flowchart



Algorithm

Start

Input: Read the radius (r).

Process: Calculate the area by multiplying $3.14 * r * r$.

Output: Print the result (formatted to 4 decimal places).

Stop

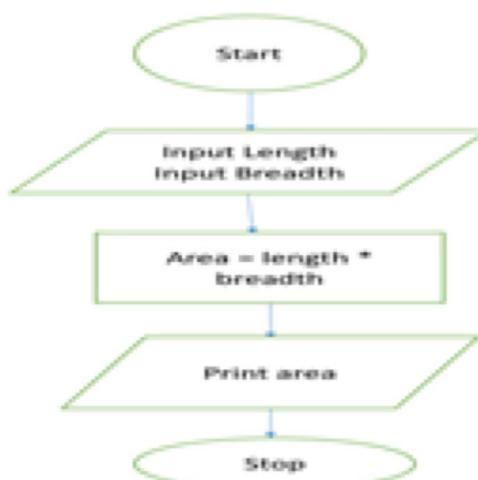
The screenshot shows a Python code editor on CodeTantra. The code is as follows:

```
#Read the radius as a float
radius =float(input())
#define the value of pi
pi =3.14
#Calculate the area
area = pi * radius * radius
#Format the output to 4 decimal places
print("The area of the circle is: ", round(area, 4))
```

The code reads a radius from the user, calculates the area using $\pi \times r \times r$, and prints the result rounded to 4 decimal places. The output window shows the result for a radius of 3.5, which is 38.4845.

PROBLEM 1.1.2

Flowchart



Algorithm

Start

Input: Read length and width.

Process: Calculate the area by multiplying length *width.

Output: Print the result (formatted to 2 decimal places).

Stop

The screenshot shows a Python code editor on the CodeTantra platform. The title bar says "1.1.2. Area of Rectangle". The code in the editor is:

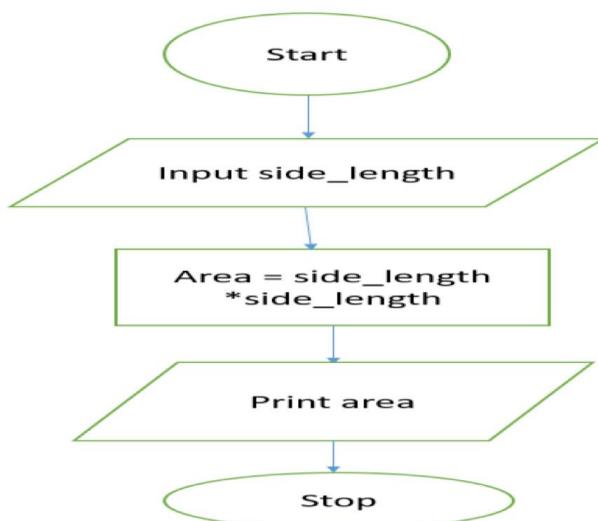
```
length=float(input())
width=float(input())
area = length * width
print(f"{area:.2f}")
```

The output window shows the results of running the program:

```
34
35
1190.00
==== YOUR PROGRAM HAS ENDED ====
```

PROBLEM 1.1.3

Flowchart



Algorithm

Start

Input: Read the value for `side_length` from the user.

Process: Convert the input value to an integer.

Calculation: Calculate the area using the formula: $\text{Area} = \text{side_length}^2$

Output: Print the calculated area.

Stop

CODE TANTRA Home nirmayee.kadam.batch2025@sitnagpur.siu.edu.in Support Logout

1.1.3. Calculate Area of the Square 00:13 A ⚙️ ⚙️ -

Write a Python program that prompts the user to enter the `side_length` of a square and computes the area of the square.

Formula:

- $\text{Area} = \text{side_length}^2$

Input Format:

- The input is a positive integer value that represents the `side_length` of the square.

Output Format:

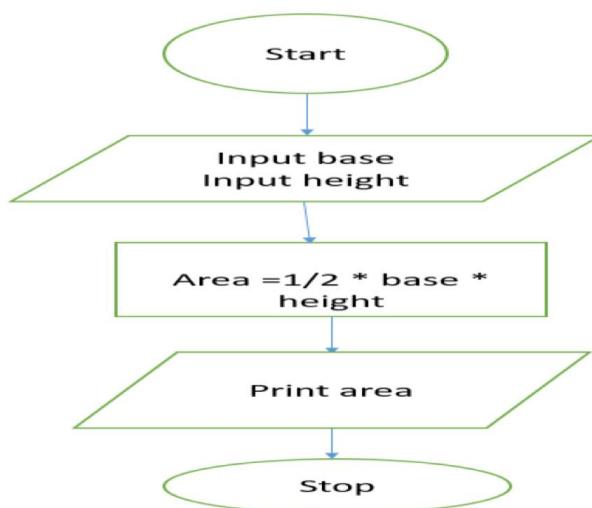
- The output is a positive integer value that represents the area of the square.

Explorer AreaSqua... 1 side_length=int(input()) 2 area=side_length * side_length 3 print(area) 4 5 6 7 34 1156 === YOUR PROGRAM HAS ENDED ===

Submit Debugger

PROBLEM 1.1.4

Flowchart



Algorithm

Start

Input 1: Read the first value from the user and store it as base.

Input 2: Read the second value from the user and store it as height.

Calculation: Calculate the area using the formula = Area = 0.5 \times base \times height

Output: Print the calculated area, formatted to exactly two decimal places.

Stop

The screenshot shows the CodeTantra IDE interface. The title bar says "CODETANTRA" and "Home". The top right has a user name "nirmayee.kadam.batch2025@sitnagpur.siu.edu.in", "Support", and a "Logout" button. The main area has a dark header "1.1.4. Area of Triangle" with a timer "00:43". Below it is a text area with instructions: "Write a Python program that prompts the user to enter the triangle's base and height and computes the triangle's area." and "Formula: Area of Triangle = 0.5 × base × height.". To the right is a code editor titled "triangleA...". It contains the following Python code:

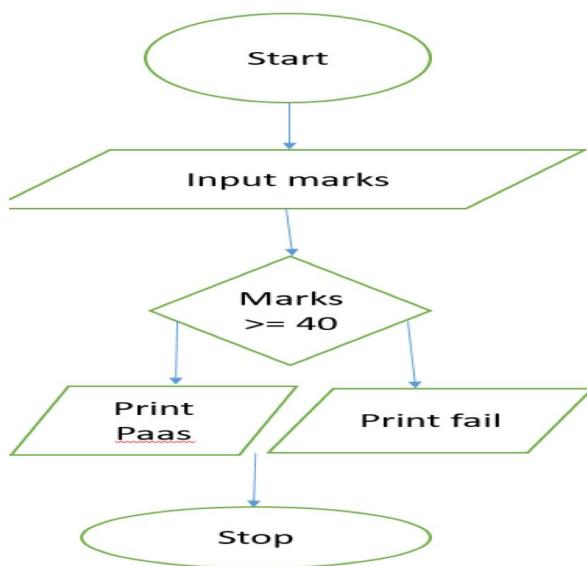
```
base=float(input())
height=float(input())
area_of_triangle=0.5*base*height
print(f'{area_of_triangle:.2f}')
```

Below the code editor is a terminal window showing the output of the program:

```
34
36
612.00
== YOUR PROGRAM HAS ENDED ==
```

PROBLEM 1.1.5

Flowchart



Algorithm

Start

Input: Read the marks from the user.

Process: Convert the input to an integer.

Decision: Check if marks is greater than or equal to 40.

If Yes: Print "Pass".

If No: Print "Fail".

Stop

CODETANTRA Home nirmayee.kadam.batch2025@sitnagpur.siu.edu.in Support Logout

1.1.5. Student Pass or Fail Status 00:00 A ⚡ -

Write a Python program to determine whether a student passed the exam or not based on their marks.

Pass/Fail Criteria:

- A student passes if marks ≥ 40
- A student fails if marks < 40

Input Format:

- Single line contains an integer representing the marks obtained by the student.

Output Format:

- Print "Pass" if the student passed the exam.
- Print "Fail" if the student failed the exam.

passOrFail...

```
1 marks = int(input())
2 if marks >= 40:
3     print("Pass")
4 else:
5     print("Fail")
```

50
Pass
--- YOUR PROGRAM HAS ENDED ---